

# NASA TECH BRIEF

## *Marshall Space Flight Center*



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### **Pictorial Display of Materials and Processes Aids in Fabricating Complex Assemblies**

An improved method for determining the materials and processes needed to fabricate an assembly consists of a single pictorial display showing a cutaway view of the assembly, the subassemblies identified by name, and the materials and processes identified by both specification and commercial designation. Previously, gathering the necessary information required the review of several different documents, such as engineering drawings, process specifications, material specifications, and a qualified source list.

In the pictorial display shown in the figure, lines connect the subassemblies on the cutaway view to the subassembly nomenclature listing, and continue to various points on the fabrication information chart. By following the lines, it is possible to determine the fabrication requirements for each subassembly.

The assembly fabrication display can be used in engineering, manufacturing, and personnel training as an aid in defining and understanding fabrication processes.

#### **Notes:**

1. Designation of commercial company products is only indicative, not inclusive, and is not a recommendation of one company over another.
2. Requests for further information may be directed to:

Technology Utilization Officer  
Code A&TS-TU  
Marshall Space Flight Center  
Huntsville, Alabama 35812  
Reference: B71-10341

#### **Patent status:**

No patent action is contemplated by NASA.

Source: G. J. Fawkes and R. M. Ehret of  
North American Rockwell Corp.  
under contract to  
Marshall Space Flight Center  
(MFS-24006)

(continued overleaf)

# Process Specifications

# Material Specifications

Number	Type	Purpose
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Number	Commercial Designation
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MA0160-045 - App  
MA0605-009 - Fab  
MA0605-014 - Fab  
MA0606-013 - Bonding  
MA0606-027 - Bonding  
MA0606-050 - App  
MA0606-050 - App  
MA0608-015 - App

Primer  
Shape Charge  
Fairing  
Polyurethane  
Laminate  
Common Bulkhead  
Foam Filled-Hard  
Spots  
Spray Foam  
Ext. Aft Skirt  
& Inner Stage

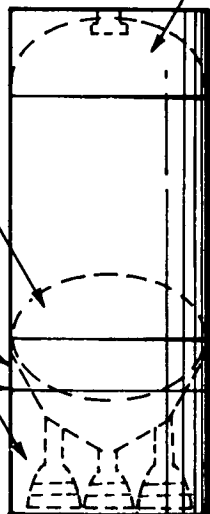
Forward Skirt Insulation

LH2 Bulkhead Insulation

Common Bulkhead

Aft Skirt & Inner Stage-Exterior

Shape Charge Fairing



MB0120-008	Epon 934
MB0120-014	HT-424 Foam Tape
MB0120-023	Lefkowied-109
MB0120-024	Narmco 7343
MB0120-026	Thixotropic Paste
MB0120-032	M602 Primer
MB0120-034	Lefkowied-211
MB0120-042	Primer "M"
MB0120-047	Epoxy/Phen Primer
MB0120-048	HT424 Adhesive
MB0125-006	Epoxy Paint
MB0125-036	Func/Res Paint
MB0125-038	SS4004 Primer
MB0125-045	Chem Seal
MB0125-046	Dynatherm-V-455
MB0130-004	Phen Glass Prepreg
MB0130-014	HRT Core
MB0130-019	RTV-3 Types
MB0130-046	Pour Foam
MB0130-020	Cork
MB0130-077	Spray Foam-2 LB
MB0135-008	Glass Scrim Cloth
MB0135-009	Glass Fabric
MB0135-021	Nylon Fabric
MIL-A-24179	Contact Adhesive
NONE	Glass Balloons